



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Sze Cheng Yang GROUP: 1711  
SERIAL NO: 09/905,316 EXAMINER: Truong, Duc  
FILED: July 13, 2001  
FOR: FUNCTIONALIZED AND PROCESSABLE  
CONDUCTING POLYMERS

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Sir:

**RULE 116 RESPONSE**

The Final Office Action dated June 20<sup>th</sup>, 2003 has been received and the comments of the Examiner have been carefully considered.

Claims 1-7 have been rejected as being anticipated by or, in the alternative, as being obvious over Liu et al or WO 9703127.

Claim 1 recites an electrically conductive composition that includes:

a plurality of cross-linked polymeric complexes; each polymeric complex comprising:


a strand of a  $\pi$ -conjugated polymer; and  
a strand of a polyelectrolyte, the polyelectrolyte being non-covalently bonded to the  $\pi$ -conjugated polymer and having at least one reactive functional group, the reactive functional group facilitating the cross-linkage between the polymeric complexes when the complexes are heated, the composition resisting swelling when exposed to an aqueous medium. [cl. 1, emphasis added]

To support the anticipation rejection and the obviousness rejection the Examiner argues that Lui et al. or WO 9703127 disclose a polymeric complex that includes a conductive polymer bonded to a non-conducting polymer. However, Applicant is

claiming a composition comprised of a *plurality of polymeric complexes that are cross-linked*. The Examiner's argument that the polymeric complex recited in claim 1 is allegedly taught or suggested by Lui et al. or WO 9703127 is simply not probative of the issue of whether Lui et al. or WO 9703127 teaches or suggests *the structural limitation* of claim 1 which recites, "*a plurality of cross-linked polymeric complexes...*" [cl. 1., emphasis added].<sup>1</sup>

In view thereof, it is respectfully requested that the Examiner withdraw the anticipation rejection and obviousness rejections of independent claim 1, and claims 2-6 dependent thereon, as the cited art fails to teach or suggest at least the limitation of claim 1 relating to *a plurality of cross-linked polymeric complexes*.

Respectfully submitted,



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<sup>1</sup> Support for this feature of Applicants' claimed invention can be found in the specification on page 6, lines 21-23, bridging to page 7, lines 1-7, page 14, lines 14-22 and page 18, lines 6-9.

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**CERTIFICATE OF MAILING (37 CFR §1.8(a))**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

  
Meghan H Carr

Date: 9/22/03